

Change 127
Manual of the Medical Department
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To: Holders of the Manual of the Medical Department

1. **This Change**

- a. Completely revises Chapter 14, Section III, Aviation Physiology Program.
- b. Renames Section III, Aerospace/Operational Physiology Program.

2. **Action**

- a. Remove Special Activities cover page and replace with revised like page.
- b. Remove Contents page 14-2 and replace with the revised like page.
- c. Remove entire Section III and replace with the revised like Section III.
- d. Record this Change 127 in the Record of Page Changes.



D. C. ARTHUR
Chief, Bureau of
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SPECIAL ACTIVITIES



*TRANSPLANTATION
SUPPORT*

*NAVY BLOOD
PROGRAM*

*AEROSPACE/
OPERATIONAL
PHYSIOLOGY
PROGRAM*

Chapter 14

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Section III

AEROSPACE/OPERATIONAL PHYSIOLOGY PROGRAM

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14-10 Naval Aerospace/ Operational Physiology Program (NAPP)

(1) **Purpose.** Bureau of Medicine and Surgery (BUMED) directs the NAPP. The provisions of this article and the following articles are applicable to all commands and personnel who administer or participate in the NAPP or any of its elements.

(2) **Background.** BUMED established the NAPP in 1978 to comply with the Chief of Naval Operations (CNO) task to provide support to the Aircrew Survivability Enhancement Program. Aerospace physiologists and their assistants had historically participated in the aeromedical/survival training of naval aviation personnel, and in the development and introduction of aviation life support systems (ALSS) (particularly aircrew personal protective equipment). In the late 1970s, the role of the aerospace physiologist expanded to provide support to the Naval Aviation Safety Program, primarily through the establishment of the Aeromedical Safety Officer (AMSO) Program. The NAPP provided the central management necessary to support these diverse functions. The Naval Aviation Physiology Program Planning Committee (NAP³C) was established in 1981 to provide a steering council of senior aerospace physiologists for strategic planning and program management. In 1994, the CNO appointed BUMED as the Training Agent (TA) for the Naval Aviation Survival Training Program (NASTP).

14-11

**Mission and
Elements
of the NAPP**

(1) **Mission.** The mission of the NAPP is to support operational readiness through education, training, aeromedical support, and research, development, testing and evaluation (RDT&E).

(2) **Program Elements.** The NAPP consists of five major elements, each providing key support to the operational readiness of the Fleet.

(a) **NASTP.** The purpose of the NASTP is to prepare all prospective and designated aeronautical personnel, selected passengers, project specialists, and other authorized individuals in the aeromedical aspects of flight and survival. These aspects include human factors and physiological threats related to the flight environment, physiological elements to enhance flight mission performance, mishap prevention, mishap and hostility survival, ALSS applications, and correct emergency egress and rescue procedures. NASTP requirements are CNO directed, BUMED is assigned as the TA. Implementation follows the BUMED NASTP Standard Operating Procedures (SOP) Manual.

(b) **Quality Assurance and Revalidation (QA&R) Program.** The QA&R Program establishes a process of inspection and testing of Naval Air Systems Command Training Systems Division Orlando, Florida, managed equipment and other associated NASTP training devices and equipment. This process confirms device performance as prescribed by technical acceptance criteria and provides for evaluation of the technical and integrated logistics support elements required to assure the training devices and equipment continue to perform satisfactorily, safely, and effectively throughout their life cycle. An NASTP Trainer Management Team (TMT) is chartered to prioritize resources to meet Fleet training requirements.

(c) **AMSO Program.** The purpose of the AMSO Program is to provide specialized consultation, assistance, technical liaison, evaluations, and recommendations directly to and working directly with the Navy and Marine Corps aviation community.

(d) **Fleet Air Introduction and Liaison of Survival Aircrew Flight Equipment (FAILSAFE) Program.** The FAILSAFE Program augments and facilitates the introduction of new and modified items of ALSS to Fleet aviation. FAILSAFE encompasses all facets of ALSS acquisition including: requirement identification; design research; development; testing and evaluation; Fleet introduction; modifications; maintenance; training (maintainers and users); life cycle support; and use. A memorandum of understanding exists between BUMED and NAVAIR governing the program.

(e) **RDT&E.** RDT&E is supported by NAPP's efforts in the human performance, operational readiness, and survival equipment arenas. Aerospace physiologists are detailed to medical research centers, Naval Air Systems Command, line communities, and further support RDT&E via Naval Survival Training Institute (NSTI) resources to facilitate research and evaluation required to meet operational requirements.

14-12

**Implementation
and Management
of the NAPP**

(1) **Implementation.** The mission is accomplished by means of:

(a) Management and implementation of the components of the NAPP in compliance with CNO (N88) and Commander Naval Air Forces policies through AMSOs, aerospace safety corpsmen (AMSCs), and aerospace physiologists and their assistants at aviation survival training centers (ASTCs) throughout the Navy and Marine Corps.

(b) Implementation of the Naval Air Systems Command sponsored FAILSAFE Program through the assigned annual Naval Air Systems Command Airtask and work unit assignments.

(c) Support of aeromedical and ALSS RDT&E programs.

(d) Professional and technical career development of officers, enlisted personnel, and civilians assigned to support the NAPP. Naval aerospace physiologist officer career progression goals are established and available, as is a formalized BUMED approved Aerospace Physiologist Internship Program for mentoring first tour officers.

(e) A BUMED NASTP SOP manual and Job Qualification Requirements (JQR) for all training evolutions have been established and are in place ensuring safe implementation of high risk training.

(f) Established NASTP safety, standardization, training quality assessment, and QA&R Program of inspections for ASTCs.

(2) **Management.** The NAPP is managed by BUMED Aerospace Medicine.

(c) Act as the central point of contact in matters pertaining to program policy and safety.

(d) Approve the curricula developed for training aerospace physiologists and aerospace physiology technicians.

(e) Assign a specialty leader for matters pertaining to the personnel required to support the NAPP including acquisition, education, officer and enlisted billet distribution, and officer billet nominations.

(f) Advise Commander, Naval Air Forces on the impact of new systems and technology on aircrews in areas such as night vision devices, laser devices and weapons, chemical, biological, and radiological threats, Gravity-Tolerance Improvement Program, anthropometry, etc.

(2) **NSTI** is assigned training responsibilities by BUMED and is assigned by OPNAV as the NASTP course curriculum model manager. To fulfill these responsibilities, NSTI shall:

(a) Develop and issue policies and procedures for safe and efficient implementation of the NASTP.

(b) Develop and maintain NASTP curricula.

(c) Compile and analyze data relating to training workload and safety.

(d) Conduct annual safety, standardization, training quality assessments, and QA&R inspections of ASTCs.

(e) Provide professional training for enlisted (Corpsman) leading to designation as an aerospace physiology technician (NEC HM-8406/8409).

(3) Naval Aerospace Medical Institute (NAMI) is assigned aeromedical training responsibilities and shall:

(a) Provide professional training for officers leading to designation as an aerospace physiologist (subspecialty 1836).

(b) Provide professional training for enlisted (Corpsman) leading to designation as an aerospace medical technician (NEC HM-8406).

14-13

Responsibilities for the NAPP

(1) **Chief, BUMED.** BUMED is assigned as the NAPP manager and by CNO as the NASTP TA. To fulfill responsibilities it shall:

(a) Coordinate the implementation of training requirements with the CNO, Commandant of the Marine Corps, Commander Naval Air Forces, and Naval Air Systems Command.

(b) Sanction training, prioritize the major claimant's requirements, and expedite programs for all NAPP elements.

14-14

NAPP Planning Committee/ Executive Steering Council (NAP³C)

(1) *Purpose*

(a) Implement the principles and processes of continuous quality improvement within the NAPP using participatory management tools. Specifically, the NAP³C shall serve as the executive steering council for the NAPP. Members shall serve as assigned by the chairman.

(b) Improve communications within the subspecialty by serving as a conduit of information and status reports for programs and projects to the program manager and specialty leader.

(c) Refine career pathways for aerospace physiologists. Coordinate with commands in reviewing billet requirements, distribution of billets, and career progress offered by each billet. Provide counsel to the program manager and specialty leader on the personal and educational requirements, as well as the career development for all aerospace physiologists. Periodically review the established career progression pathway for aerospace physiologists.

(d) Review requirements for full-time outservice training (FTOST). This would include the number of aerospace physiologists in FTOST, types of degrees considered appropriate, and recommendations to the FTOST Board, specialty leader, and program manager.

(e) Recommend standardized internship training requirements for first tour aerospace physiologists. Monitor and periodically review the Internship Program to ensure it is remaining responsive to the needs of the individuals, the NASTP, and the operational forces in developing high caliber Naval officers, Medical Service Corps officers, and aerospace physiologists.

(f) Make recommendations on the training and distribution of aviation physiology technicians (NEC HM-8406/8409). Review JQRs for all billets following the guidelines in OPNAVINST 1000.16 series.

(g) Provide criteria for screening applicants for the aerospace physiology subspecialty, i.e., minimum educational requirements, levels of experience, etc., to the specialty leader.

(h) Assist program manager and specialty leader in the implementation and monitoring of the QA&R Program. Provide the program manager or TA with recommendations on the procurement, modification, and maintenance of all training devices used in the NASTP via the TMT.

(i) Advise and assist the program manager and specialty leader in the management of the NASTP.

(j) Establish criteria for the awards provided by the NAPP and vote for recipients in recognition of superior contributions. Periodically review the established NAPP awards criteria and selection process procedures.

(k) Provide input on any other issues concerning the NAPP as requested by the program manager or specialty leader.

(2) **Membership.** The membership shall consist of senior aerospace physiologists assigned to key aerospace physiology billets within the NAPP and a junior officer representative.

(a) All members are full voting members.

(b) NAP³C members are designated as such by assignment by the aerospace physiology program manager.

(c) The NAP³C chairman shall be the aerospace physiologist assigned to BUMED as the NAPP program manager.

(d) The junior officer representative shall be a lieutenant willing to serve (lieutenants in the internship program and OCONUS billets are excluded). The ten senior aerospace physiologist lieutenants present during an annual FAILSAFE meeting shall elect this individual for a 2-year term.

(3) **Meetings.** The NAP³C will meet formally at least twice annually and otherwise stay in communication via electronic means.

(a) These meetings will be held in conjunction with other regularly scheduled program meetings when possible.

(b) The junior officer representative serves as the recording secretary for the committee and will submit the minutes to the Chairman for approval.

(c) Meeting minutes will be distributed to all active duty aerospace physiologists and other interested parties.